# APPENDIX A

# Evaluation of Site I North

# APPENDIX A
# EVALUATION OF SITE I NORTH

## 1.0 Introduction

The HHRA (ENSR, 2001) evaluated Site I as one exposure area. In the RI, Site I was divided into two areas, Site I North and Site I South, as discussed in Section 8 of the main text of this RI report. This appendix presents an evaluation of potential risk and hazards associated with Site I North to determine whether constituents detected in media in this area may pose a potential risk and/or hazard above USEPA's target risk target risk range of $1x10^{-6}$ to $1x10^{-4}$ or target hazard index (HI) of 1. A constituent contributing to a cumulative potential risk above USEPA's target risk range or HI level will be designated as a constituent of concern (COC).

## 2.0 Evaluation Approach and Results

The site-wide HHRA (ENSR, 2001) identified the following COCs for the Site I (referred to as the combined Site I in this appendix). The exposure pathways and receptors for which the target potential risk or HI were exceeded are presented in parentheses.

- Antimony (ingestion and dermal contact with subsurface soil for the construction worker)
- Chlorobenzene (inhalation of excavation air from leachate for the construction worker)
- Chloroform (inhalation of excavation air from leachate for the construction worker)
- MCPP (ingestion and dermal contact with leachate for the construction worker)
- Naphthalene (inhalation of excavation air from leachate for the construction worker)
- Polychlorinated Biphenyls (PCBs) (ingestion and dermal contact with surface soil for the outdoor industrial worker and ingestion and dermal contact with surface soil, subsurface soil, and leachate for the construction worker)
- 2,3,7,8-TCDD-TEQ (ingestion and dermal contact with surface soil for the outdoor industrial worker)

Since exposure point concentrations (EPCs) for the combined Site I are equal to the maximum detected constituent concentration, EPCs for Site I North would not be higher than those calculated for the combined Site I. Consequently, constituents that were not identified as COCs as a result of the HHRA for the combined Site I would also not be identified as COCs for Site I North. Therefore, the potential risk and hazard quotient (HQ) were estimated for the above constituents identified as COCs in the combined Site I using the maximum concentrations detected in Site I North to determine whether these constituents are COCs in Site I North.

## 2.1 Site I North Summary Statistics

Data evaluated in the HHRA from samples collected within Site I North were summarized and summary statistics, including the frequency of detection, and minimum, mean, and maximum detected concentrations were calculated. Summary statistics tables for surface soil and TCLP data in Site I North are presented on Tables A-1 and A-2, respectively. All historical subsurface soil samples and the leachate sample evaluated in the HHRA for the combined Site I were collected within Site I South. Therefore, summary tables for these media are not presented.

## 2.2 Estimation of Potential Risk and Hazard Quotients

The following equation was used to estimate the potential risk and HQ associated with the combined Site I COCs that were detected in Site I North:

Risk/HQ-Site I North = Risk/HQ-Site I / [(EPC-Site I) x (EPC-Site I North)]

Where:

| | |
|---|---|
| Risk/HQ-Site I North | = Estimated potential risk or HQ associated with the EPC from Site I North. |
| Risk/HQ-Site I | = Estimated potential risk or HQ associated with the EPC from the combined Site I as calculated in the HHRA (ENSR, 2001). |
| EPC-Site I | = EPC for the combined Site I as calculated in the HHRA (ENSR, 2001). |
| EPC-Site I North | = EPC for Site I North; equal to the maximum detected concentration. |

Table A-3 presents the EPCs and resulting potential risk and HQs based on the EPCs. This table also presents a column indicating whether the constituent is identified as a COC and the rationale for the decision. As shown in Table A-3, the potential risk and HQs calculated for all combined Site I COCs detected in Site I North are below or within USEPA's target risk range of $1x10^{-6}$ to $1x10^{-4}$ and below USEPA's target HQ of 1. Therefore, none of the constituents identified as COCs in the combined Site I in the HHRA (ENSR, 2001) are identified as COCs in Site I North.

## 2.3 Evaluation of DNAPL Characterization Study Subsurface Soil Samples

Three subsurface soil samples were collected in 2004 as part of the DNAPL Characterization Study (GSI, 2006). These samples were collected after the completion and approval of the HHRA and were therefore not included in the HHRA. These samples were evaluated as part of the Site I North evaluation to determine if these data would result in the identification of COCs at Site I North. Constituents were detected in the 2004 subsurface soil data that were not detected in the samples evaluated in the HHRA. Therefore, the approach discussed in Section 2.2 could not be used for all constituents. Instead, the maximum detected concentrations in the 2004 subsurface soil samples were compared to the screening levels used to select constituents of potential concern (COPCs) for further evaluation in the HHRA. These screening levels are equal to the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Corrective Action Objectives (TACO) Tier I Construction Worker Direct Contact Concentrations (IEPA, 1998). The summary statistics for the subsurface soil data and the comparison of the maximum detected subsurface soil concentrations to the TACO Tier I Construction Worker Direct Contact Concentrations are shown on Table A-4. As shown on this table, all

constituents were detected in subsurface soil data below the screening levels. Therefore, no subsurface soil COCs are identified in Site I North.

# 3.0 Conclusion

An evaluation of potential risk and hazards associated with Site I North was performed to determine whether constituents detected in media in this area may pose a potential risk and/or hazard above USEPA's target risk target risk range of $1x10^{-6}$ to $1x10^{-4}$ or target hazard index (HI) of 1. The results of this evaluation show that constituents detected in media in Site I North do not pose a potential risk or hazard above USEPA target levels. Therefore, there are no COCs identified in Site I North.

# 4.0 References

**ENSR. 2001.** Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).

**GSI, 2006.** Results of DNAPL Characterization and Remediation Study, Revision 1, Sauget Area 1, Sauget and Cahokia, Illinois: Groundwater Services, Inc., August 28, 2006.

**IEPA. 1998**. Tiered Approach to Corrective Action Objectives. Title 35, Subtitle G, Chapter I, Subchapter J, Part 742. As amended June 8, 1998. Illinois Environmental Protection Agency.

**Table A-1**
**Site I North Source Area Surface Soil Data Summary**

| Constituent | CAS No. | FOD (a) | %FOD (b) | Minimum (c) (mg/kg) | Mean (c) (mg/kg) | Maximum (c) (mg/kg) |
|---|---|---|---|---|---|---|
| **VOCs** | | | | | | |
| Toluene | 108-88-3 | 1 : 2 | 50 | 3.80E-03 | 3.80E-03 | 3.80E-03 |
| **SVOCs** | | | | | | |
| 4-Chloroaniline | 106-47-8 | 1 : 2 | 50 | 2.40E-01 | 2.40E-01 | 2.40E-01 |
| Anthracene | 120-12-7 | 2 : 2 | 100 | 2.85E-02 | 3.79E-01 | 7.30E-01 |
| Benzo(a)anthracene | 56-55-3 | 2 : 2 | 100 | 2.40E-01 | 1.22E+00 | 2.20E+00 |
| Benzo(a)pyrene | 50-32-8 | 2 : 2 | 100 | 1.95E-01 | 1.20E+00 | 2.20E+00 |
| Benzo(b)fluoranthene | 205-99-2 | 2 : 2 | 100 | 2.60E-01 | 1.53E+00 | 2.80E+00 |
| Benzo(g,h,i)perylene | 191-24-2 | 2 : 2 | 100 | 1.45E-01 | 8.73E-01 | 1.60E+00 |
| Benzo(k)fluoranthene | 207-08-9 | 2 : 2 | 100 | 1.31E-01 | 5.46E-01 | 9.60E-01 |
| bis(2-Ethylhexyl)phthalate | 117-81-7 | 1 : 2 | 50 | 9.00E-02 | 9.00E-02 | 9.00E-02 |
| Carbazole | 86-74-8 | 1 : 2 | 50 | 3.20E-01 | 3.20E-01 | 3.20E-01 |
| Chrysene | 218-01-9 | 2 : 2 | 100 | 2.55E-01 | 1.23E+00 | 2.20E+00 |
| Dibenzo(a,h)anthracene | 53-70-3 | 2 : 2 | 100 | 2.90E-02 | 1.95E-01 | 3.60E-01 |
| Dibenzofuran | 132-64-9 | 1 : 2 | 50 | 1.00E-01 | 1.00E-01 | 1.00E-01 |
| Di-n-butylphthalate | 84-74-2 | 1 : 2 | 50 | 5.20E-02 | 5.20E-02 | 5.20E-02 |
| Fluoranthene | 206-44-0 | 2 2 | 100 | 3.65E-01 | 3.18E+00 | 6.00E+00 |
| Fluorene | 86-73-7 | 1 2 | 50 | 2.30E-01 | 2.30E-01 | 2.30E-01 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | 2 2 | 100 | 1.50E-01 | 8.75E-01 | 1.60E+00 |
| Phenanthrene | 85-01-8 | 2 2 | 100 | 1.10E-01 | 1.71E+00 | 3.30E+00 |
| Pyrene | 129-00-0 | 2 2 | 100 | 3.85E-01 | 2.54E+00 | 4.70E+00 |
| **Pesticides** | | | | | | |
| 4,4'-DDD | 72-54-8 | 2 : 2 | 100 | 3.10E-04 | 3.68E-04 | 4.25E-04 |
| 4,4'-DDE | 72-55-9 | 2 : 2 | 100 | 1.55E-03 | 4.48E-03 | 7.40E-03 |
| 4,4'-DDT | 50-29-3 | 1 : 2 | 50 | 2.50E-03 | 2.50E-03 | 2.50E-03 |
| Aldrin | 309-00-2 | 2 : 2 | 100 | 8.20E-04 | 2.16E-03 | 3.50E-03 |
| Alpha Chlordane | 5103-71-9 | 1 : 2 | 50 | 2.65E-03 | 2.65E-03 | 2.65E-03 |
| Dieldrin | 60-57-1 | 2 : 2 | 100 | 1.70E-03 | 5.65E-03 | 9.60E-03 |
| Endosulfan I | 959-98-8 | 2 : 2 | 100 | 7.20E-04 | 3.21E-03 | 5.70E-03 |
| Endosulfan II | 33213-65-9 | 2 : 2 | 100 | 2.25E-03 | 8.63E-03 | 1.50E-02 |
| Endosulfan sulfate | 1031-07-8 | 1 : 2 | 50 | 8.80E-03 | 8.80E-03 | 8.80E-03 |
| Endrin | 72-20-8 | 2 : 2 | 100 | 9.10E-04 | 3.36E-03 | 5.80E-03 |
| Endrin aldehyde | 7421-93-4 | 2 : 2 | 100 | 4.70E-03 | 2.24E-02 | 4.00E-02 |
| Endrin ketone | 53494-70-5 | 2 : 2 | 100 | 3.20E-03 | 1.26E-02 | 2.20E-02 |
| Gamma Chlordane | 5103-74-2 | 2 : 2 | 100 | 5.55E-03 | 7.28E-03 | 9.00E-03 |
| Heptachlor | 76-44-8 | 1 : 2 | 50 | 8.55E-04 | 8.55E-04 | 8.55E-04 |
| Heptachlor epoxide | 1024-57-3 | 2 : 2 | 100 | 9.40E-04 | 2.82E-03 | 4.70E-03 |
| Methoxychlor | 72-43-5 | 2 2 | 100 | 1.60E-02 | 4.15E-02 | 6.70E-02 |
| **Herbicides** | | | | | | |
| 2,4-DB | 94-82-6 | 1 : 2 | 50 | 5.40E-02 | 5.40E-02 | 5.40E-02 |
| Pentachlorophenol | 87-86-5 | 2 : 2 | 100 | 1.10E-03 | 5.40E-03 | 9.70E-03 |
| **PCBs** | | | | | | |
| Total PCBs | 1366-36-3 | 2 : 2 | 100 | 4.10E-01 | 1.91E+00 | 3.42E+00 |
| **Dioxin** | | | | | | |
| Dioxin TEQ-HH | 1746-01-6 | 2 : 2 | 100 | 7.03E-05 | 2.71E-04 | 4.72E-04 |
| **Metals** | | | | | | |
| Aluminum | 7429-90-5 | 2 : 2 | 100 | 3.75E+03 | 5.88E+03 | 8.00E+03 |
| Antimony | 7440-36-0 | 2 : 2 | 100 | 4.55E+00 | 6.48E+00 | 8.40E+00 |
| Arsenic | 7440-38-2 | 2 : 2 | 100 | 4.55E+00 | 8.28E+00 | 1.20E+01 |
| Barium | 7440-39-3 | 2 : 2 | 100 | 8.30E+01 | 1.37E+02 | 1.90E+02 |
| Beryllium | 7440-41-7 | 2 : 2 | 100 | 4.60E-01 | 1.08E+00 | 1.70E+00 |
| Cadmium | 7440-43-9 | 2 : 2 | 100 | 2.40E+00 | 5.80E+00 | 9.20E+00 |
| Calcium | 7440-70-2 | 2 : 2 | 100 | 1.10E+05 | 1.73E+05 | 2.35E+05 |
| Chromium | 7440-47-3 | 2 : 2 | 100 | 1.30E+01 | 3.90E+01 | 6.50E+01 |
| Cobalt | 7440-48-4 | 2 : 2 | 100 | 2.00E+00 | 5.20E+00 | 8.40E+00 |
| Copper | 7440-50-8 | 2 : 2 | 100 | 1.65E+03 | 7.33E+03 | 1.30E+04 |
| **Metals** (cont.) | | | | | | |
| Iron | 7439-89-6 | 2 : 2 | 100 | 5.35E+03 | 1.07E+04 | 1.60E+04 |

**Table A-1**
**Site I North Source Area Surface Soil Data Summary**

| Constituent | CAS No. | FOD (a) | %FOD (b) | Minimum (c) (mg/kg) | Mean (c) (mg/kg) | Maximum (c) (mg/kg) |
|---|---|---|---|---|---|---|
| Lead | 7439-92-1 | 2 : 2 | 100 | 2.30E+02 | 5.30E+02 | 8.30E+02 |
| Magnesium | 7439-95-4 | 2 : 2 | 100 | 1.20E+04 | 1.55E+04 | 1.90E+04 |
| Manganese | 7439-96-5 | 2 : 2 | 100 | 1.60E+02 | 2.30E+02 | 3.00E+02 |
| Mercury | 7439-97-6 | 2 : 2 | 100 | 4.75E-02 | 1.79E-01 | 3.10E-01 |
| Molybdenum | 7439-98-7 | 2 : 2 | 100 | 4.75E+00 | 6.63E+00 | 8.50E+00 |
| Nickel | 7440-02-0 | 2 : 2 | 100 | 1.45E+01 | 3.98E+01 | 6.50E+01 |
| Potassium | 7440-09-7 | 2 : 2 | 100 | 1.05E+03 | 1.28E+03 | 1.50E+03 |
| Selenium | 7782-49-2 | 2 : 2 | 100 | 6.35E-01 | 1.12E+00 | 1.60E+00 |
| Silver | 7440-22-4 | 2 : 2 | 100 | 1.75E+00 | 1.04E+01 | 1.90E+01 |
| Sodium | 7440-23-5 | 2 : 2 | 100 | 4.40E+02 | 4.55E+02 | 4.70E+02 |
| Vanadium | 7440-62-2 | 2 : 2 | 100 | 1.07E+01 | 1.84E+01 | 2.60E+01 |
| Zinc | 7440-66-6 | 2 : 2 | 100 | 4.05E+02 | 8.53E+02 | 1.30E+03 |

Notes:
2,4-DB - 4-(2,4-Dichlorophenoxy) butyric acid.
CAS - Chemical Abstract Service.
Dioxin TEQ-HH - 2,3,7,8-Tetrachlorodibenzo-p-dioxin Toxic Equivalent Concentration.
Calculated using TEFs from Van den Berg et al., 2006.
PCB - Polychlorinated Biphenyl.
SVOC - Semivolatile Organic Compound.
TEF - Toxicity Equivalency Factor.
VOC - Volatile Organic Compound.

(a) Number of samples detected: Total number of samples.
(b) Percent detected.
(c) Summary statistics for each constituent for each area after sample/duplicate pairs were averaged. Only detected results are included in the mean calculation. Where both of the sample and duplicate results were reported as detected or where both were reported as not detected, the average of the values is used. Where one of the sample and duplicate results was reported as not detected and the other detected, the detected result is used.

**Table A-2**
**Site I North Source Area TCLP Data Summary**

| Constituent | CAS No. | FOD (a) | %FOD (b) | Minimum (c) (ug/L) | Mean (c) (ug/L) | Maximum (c) (ug/L) |
|---|---|---|---|---|---|---|
| **VOCs** | | | | | | |
| Trichloroethene | 79-01-6 | 1 : 1 | 100 | 1.30E+00 | 1.30E+00 | 1.30E+00 |
| **Metals** | | | | | | |
| Lead | 7439-92-1 | 1 : 1 | 100 | 5.80E+02 | 5.80E+02 | 5.80E+02 |

Notes:
CAS - Chemical Abstract Service.
VOC - Volatile Organic Compound.

(a) Number of samples detected: Total number of samples.
(b) Percent detected.
(c) Summary statistics for each constituent for each area after sample/duplicate pairs were averaged. Only detected results are included in the mean calculation. Where both of the sample and duplicate results were reported as detected or where both were reported as not detected, the average of the values is used. Where one of the sample and duplicate results was reported as not detected and the other detected, the detected result is used.

**Table A-3**
**Estimation of Potential Risk and Hazard Quotient for Site I COCs Detected in Site I North**

| | Site I | | | | Site I North | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Site I COCs** | **EPCs** | | **Risk** | **HQ** | **EPCs** | | **Risk** | **HQ** | **Is Constitunt a COC in Site I North?** | **Reason** |
| *Outdoor Industrial Worker - Ingestion/dermal contact* | | | | | | | | | | |
| Surface soil | | | | | | | | | | |
| Total 2,3,7,8-TCDD TEQ | 1.20E-02 | mg/kg | 1.36E-04 | NC | 4.72E-04 | mg/kg | 5.33E-06 | NC | No | Risk is within EPA risk range |
| Total PCBs | 1.21E+02 | mg/kg | 2.85E-05 | 1.99E+00 | 3.42E+00 | mg/kg | 8.02E-07 | 5.61E-02 | No | Risk and HQ are below EPA targets |
| *Construction Worker - Ingestion/dermal contact and/or inhalation* | | | | | | | | | | |
| Surface soil | | | | | | | | | | |
| Total PCBs | 1.21E+02 | mg/kg | 5.95E-07 | 1.03E+00 | 3.42E+00 | mg/kg | 1.68E-08 | 2.90E-02 | No | Risk and HQ are below EPA targets |
| Subsurface soil | | | | | | | | | | |
| Total PCBs | 3.43E+02 | mg/kg | 1.68E-06 | 2.91E+00 | NA | NA | NA | NA | No | NA |
| Antimony | 6.66E+03 | mg/kg | NC | 2.72E+00 | NA | NA | NA | NA | No | NA |
| Leachate/TCLP | | | | | | | | | | |
| Total PCBs | 1.08E-01 | mg/L | 3.14E-06 | 5.50E+00 | ND | ND | ND | ND | No | ND |
| Chlorobenzene | 8.90E+00 | mg/L | NC | 1.24E+00 | ND | ND | ND | ND | No | ND |
| Chloroform | 2.90E+00 | mg/L | 1.89E-06 | 2.89E+01 | ND | ND | ND | ND | No | ND |
| MCPP | 3.40E+01 | mg/L | NC | 5.74E-01 | ND | ND | ND | ND | No | ND |
| Naphthalene | 2.50E+00 | mg/L | NC | 2.01E+00 | ND | ND | ND | ND | No | ND |

Notes:
COC - Constituents of concern identified in the HHRA (ENSR, 2001).
EPC - Exposure point concentration used to estimate potential risks in the HHRA.
HHRA - Human health risk assessment.
HQ - Hazard quotient
MCPP - 2-(2-Methyl-4-chlorophenoxy)propionic acid.
NA - Not available; all of the historical subsurface soil data evaluated in the HHRA are located in Site I South.
NC - Not calculated; no dose-response value available.
ND - Not detected in TCLP samples; the leachate sample is located in Site I South.
PCB - Polychlorinated Biphenyl.
TCLP - Toxicity Characteristic Leaching Procedure.
TEF - Toxicity Equivalency Factor.

**Table A-4**
**Site I North Source Area Subsurface Soil Data Summary (DNAPL Characterization Study Data)**

| Constituent | CAS No. | FOD (a) | %FOD (b) | Minimum (c) (mg/kg) | Mean (c) (mg/kg) | Maximum (c) (mg/kg) | Taco Tier I Construction Worker Direct Contact Concentration (d) (mg/kg) | COPC? |
|---|---|---|---|---|---|---|---|---|
| **VOCs** | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | 1 : 3 | 33 | 1.70E-03 | 1.70E-03 | 1.70E-03 | 1.30E+02 | No |
| 2-Butanone | 78-93-3 | 1 : 3 | 33 | 1.80E-02 | 1.80E-02 | 1.80E-02 | 2.80E+04 | No |
| Acetone | 67-64-1 | 2 : 3 | 67 | 2.00E-02 | 2.15E-02 | 2.30E-02 | 1.00E+05 | No |
| Carbon Disulfide | 75-15-0 | 1 : 3 | 33 | 9.60E-03 | 9.60E-03 | 9.60E-03 | 9.00E+00 | No |
| Ethylbenzene | 100-41-4 | 1 : 3 | 33 | 2.20E-03 | 2.20E-03 | 2.20E-03 | 5.80E+01 | No |
| Xylenes, Total | 1330-20-7 | 2 : 3 | 67 | 2.70E-03 | 6.85E-03 | 1.10E-02 | 4.10E+02 | No |
| **SVOCs** | | | | | | | | No |
| 2-Methylnaphthalene | 91-57-6 | 1 : 3 | 33 | 5.20E-02 | 5.20E-02 | 5.20E-02 | 8.20E+03 | No |
| 3,3'-Dichlorobenzidine | 91-94-1 | 1 : 3 | 33 | 5.30E-02 | 5.30E-02 | 5.30E-02 | 2.80E+02 | No |
| Acenaphthene | 83-32-9 | 1 : 3 | 33 | 1.10E+00 | 1.10E+00 | 1.10E+00 | 1.20E+05 | No |
| Anthracene | 120-12-7 | 1 : 3 | 33 | 1.80E+00 | 1.80E+00 | 1.80E+00 | 6.10E+05 | No |
| Benzo(a)anthracene | 56-55-3 | 2 : 3 | 67 | 9.60E-02 | 1.20E+00 | 2.30E+00 | 1.70E+02 | No |
| Benzo(a)pyrene | 50-32-8 | 3 : 3 | 100 | 4.40E-02 | 7.45E-01 | 2.10E+00 | 1.70E+01 | No |
| Benzo(b)fluoranthene | 205-99-2 | 2 : 3 | 67 | 4.00E-02 | 6.25E-02 | 8.50E-02 | 1.70E+02 | No |
| Benzo(g,h,i)perylene | 191-24-2 | 3 : 3 | 100 | 3.20E-02 | 3.55E-01 | 9.60E-01 | 6.10E+04 | No |
| Benzo(k)fluoranthene | 207-08-9 | 3 : 3 | 100 | 5.00E-02 | 1.02E+00 | 2.90E+00 | 1.70E+03 | No |
| bis(2-Ethylhexyl)phthalate | 117-81-7 | 1 : 3 | 33 | 9.40E-02 | 9.40E-02 | 9.40E-02 | 4.10E+03 | No |
| Butylbenzylphthalate | 85-68-7 | 1 : 3 | 33 | 6.90E-02 | 6.90E-02 | 6.90E-02 | 9.30E+02 | No |
| Carbazole | 86-74-8 | 1 : 3 | 33 | 9.60E-01 | 9.60E-01 | 9.60E-01 | 6.20E+03 | No |
| Chrysene | 218-01-9 | 3 : 3 | 100 | 3.70E-02 | 9.12E-01 | 2.60E+00 | 1.70E+04 | No |
| Dibenzo(a,h)anthracene | 53-70-3 | 2 : 3 | 67 | 5.70E-02 | 2.09E-01 | 3.60E-01 | 1.70E+01 | No |
| Dibenzofuran | 132-64-9 | 1 : 3 | 33 | 4.60E-01 | 4.60E-01 | 4.60E-01 | 5.10E+03 | No |
| Di-n-octylphthalate | 117-84-0 | 1 : 3 | 33 | 9.20E-02 | 9.20E-02 | 9.20E-02 | 4.10E+03 | No |
| Fluoranthene | 206-44-0 | 2 : 3 | 67 | 4.00E-02 | 3.82E+00 | 7.60E+00 | 8.20E+04 | No |
| Fluorene | 86-73-7 | 1 : 3 | 33 | 9.70E-01 | 9.70E-01 | 9.70E-01 | 8.20E+04 | No |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | 3 : 3 | 100 | 3.30E-02 | 3.58E-01 | 9.60E-01 | 1.70E+02 | No |
| Naphthalene | 91-20-3 | 1 : 3 | 33 | 8.60E-02 | 8.60E-02 | 8.60E-02 | 8.20E+03 | No |
| Phenanthrene | 85-01-8 | 1 : 3 | 33 | 7.40E+00 | 7.40E+00 | 7.40E+00 | 6.10E+05 | No |
| Pyrene | 129-00-0 | 2 : 3 | 67 | 3.90E-02 | 3.17E+00 | 6.30E+00 | 6.10E+04 | No |

Notes:
CAS - Chemical Abstract Service.
COPC - Constituent of potential concern.
DNAPL - Dense Non-Aqueous Phase Liquid.
SVOC - Semivolatile Organic Compound.
VOC - Volatile Organic Compound.

(a) Number of samples detected: Total number of samples.
(b) Percent detected.
(c) Summary statistics for each constituent for each area after sample/duplicate pairs were averaged. Only detected results are included in the mean calculation. Where both of the sample and duplicate results were reported as detected or where both were reported as not detected, the average of the values is used. Where one of the sample and duplicate results was reported as not detected and the other detected, the detected result is used.
(d) Screening levels used in the HHRA (ENSR, 2001) to select COPCs for evaluation in the quantitative risk assessment.